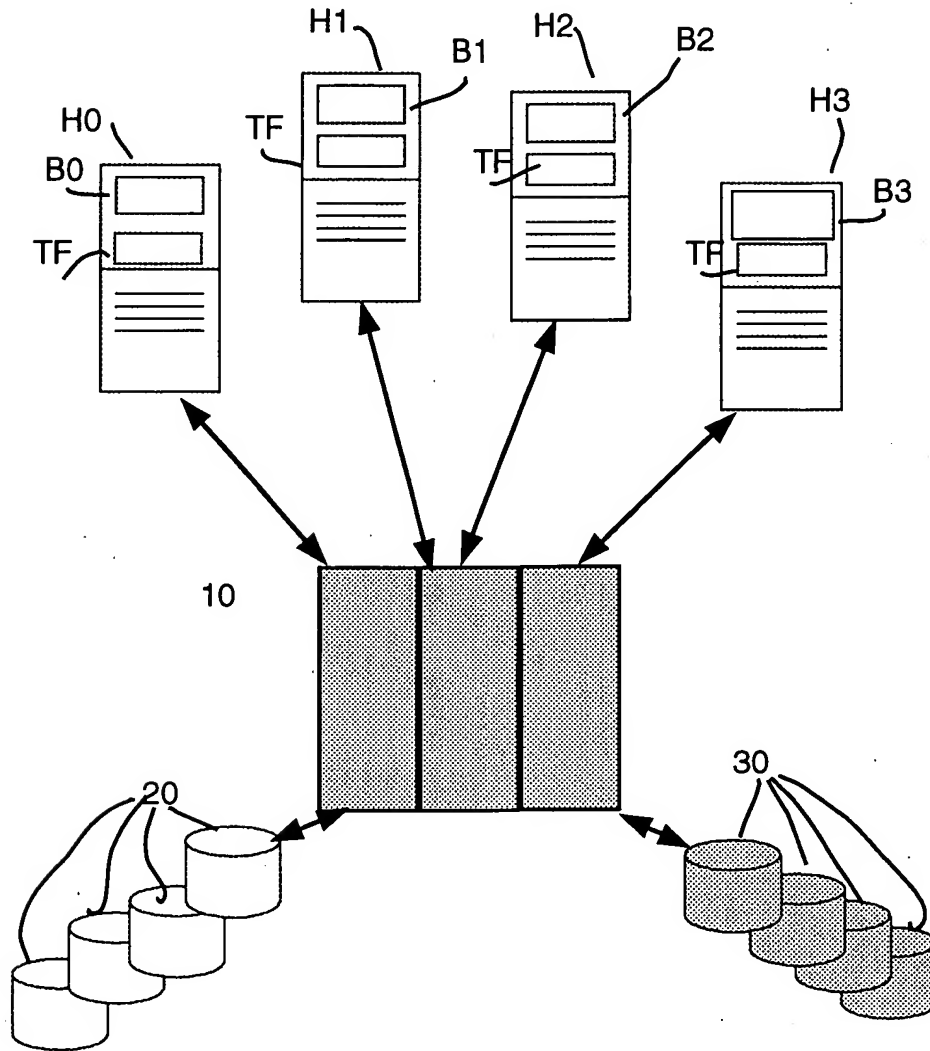


Fig. 1a



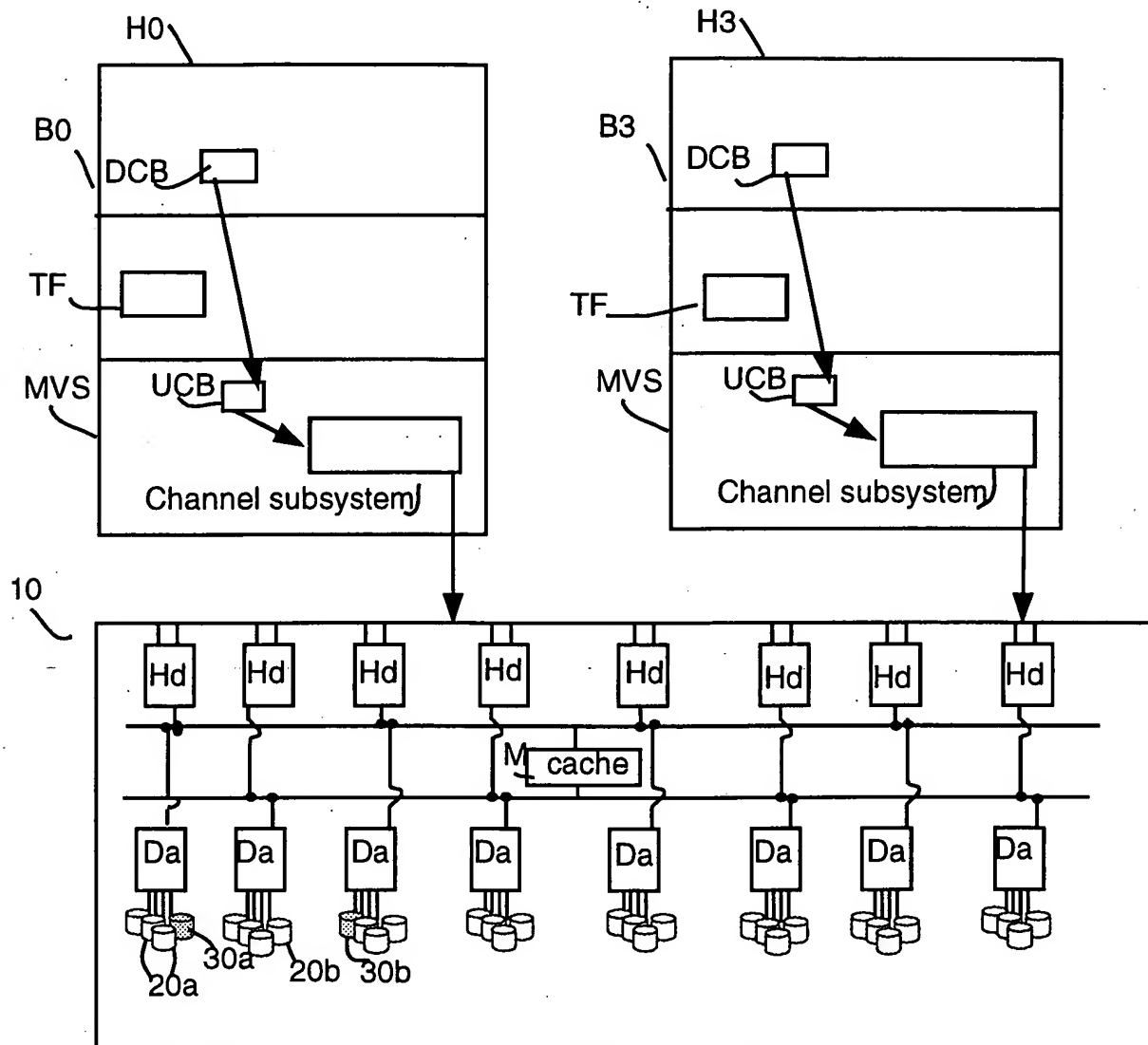


Fig. 1c

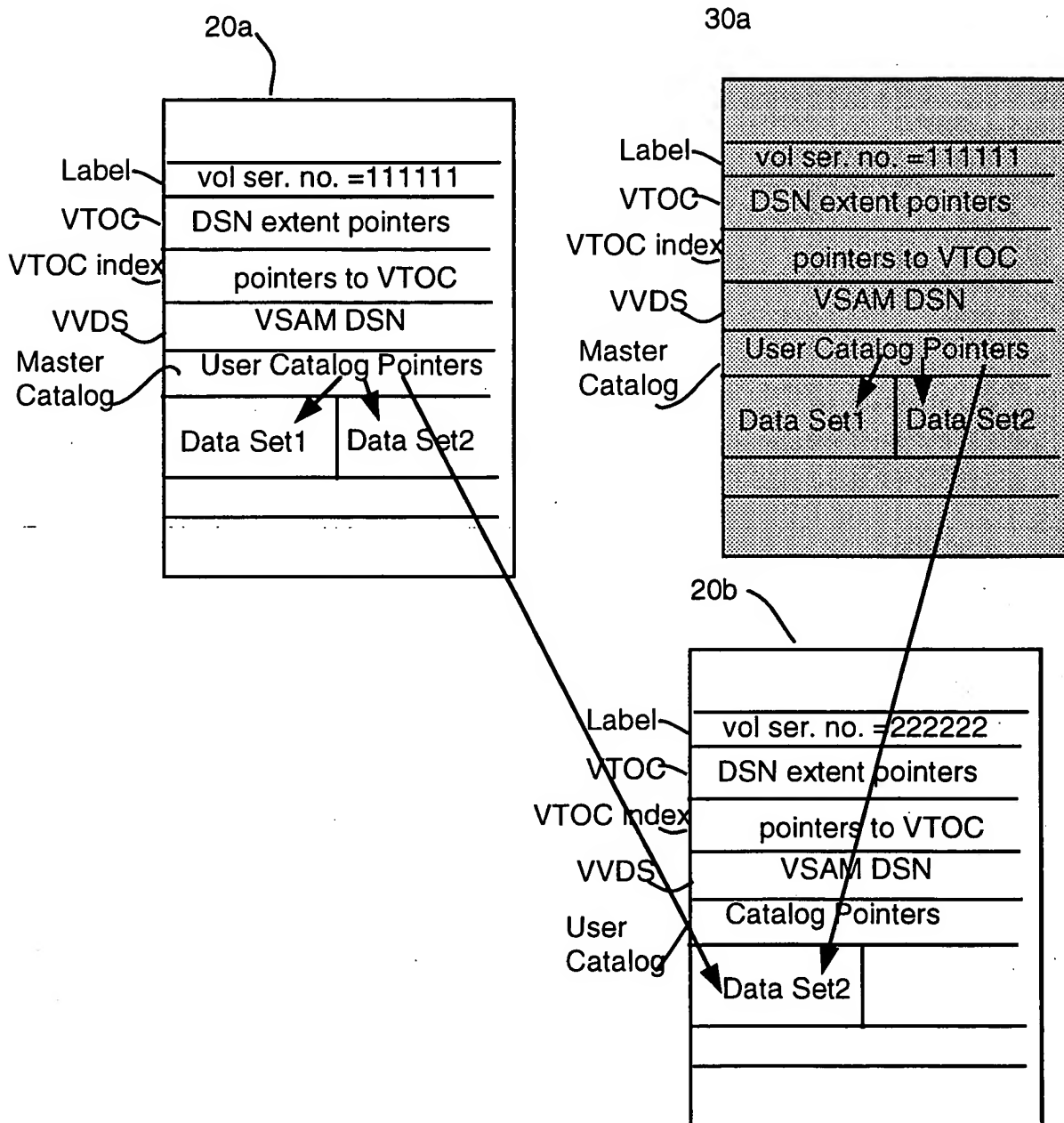


Fig. 1d

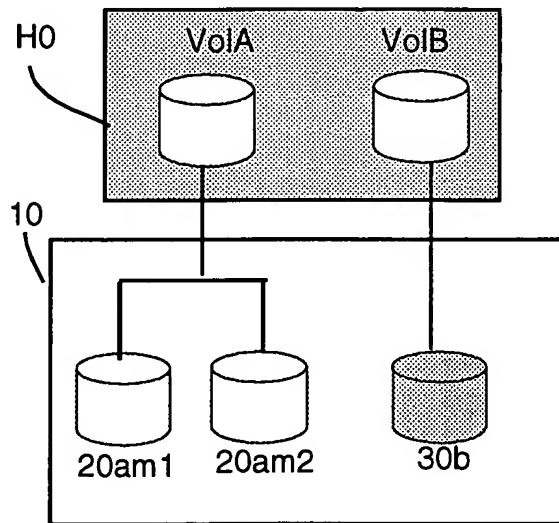


Fig. 1e

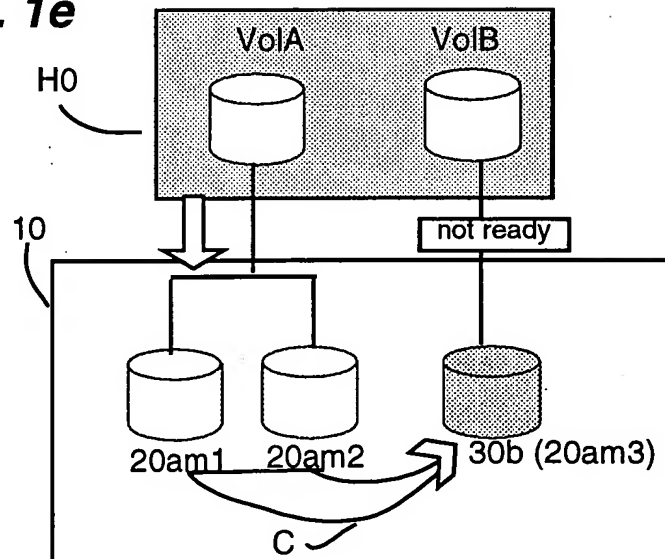
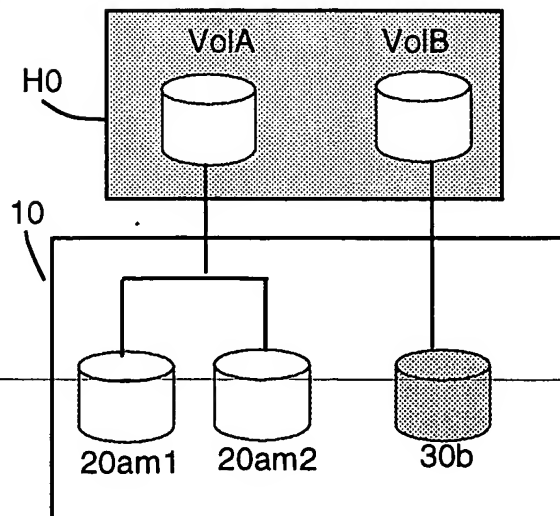


Fig. 1f



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Fig. 1g

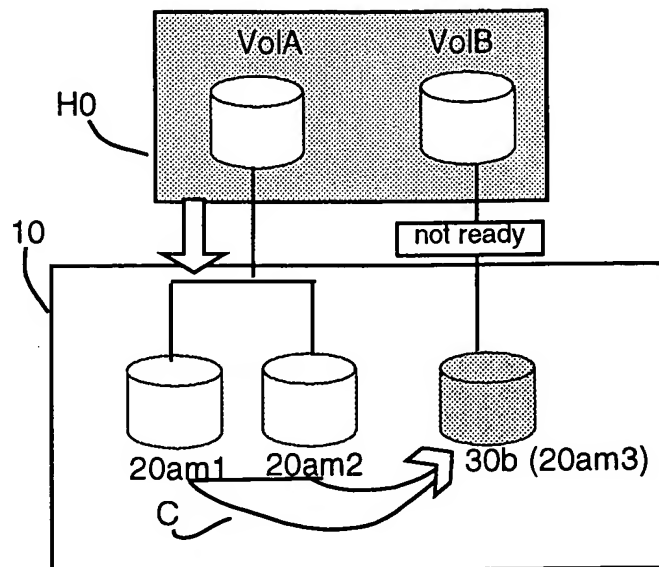
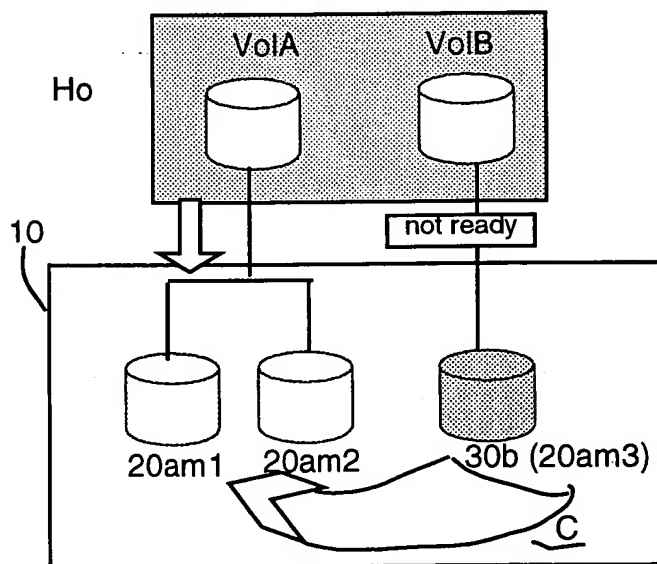
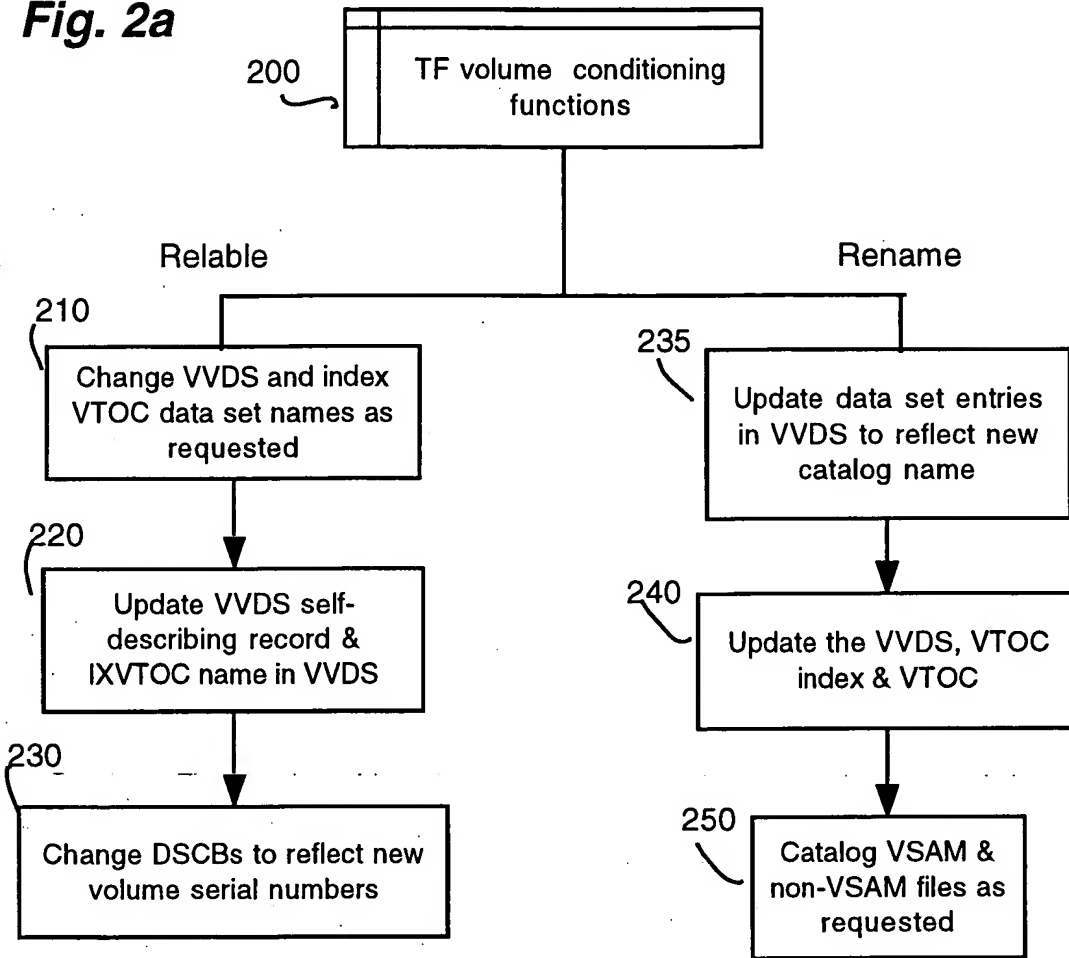


Fig. 1h



BEST AVAILABLE COPY

Fig. 2a



BEST AVAILABLE COPY

Fig. 2b

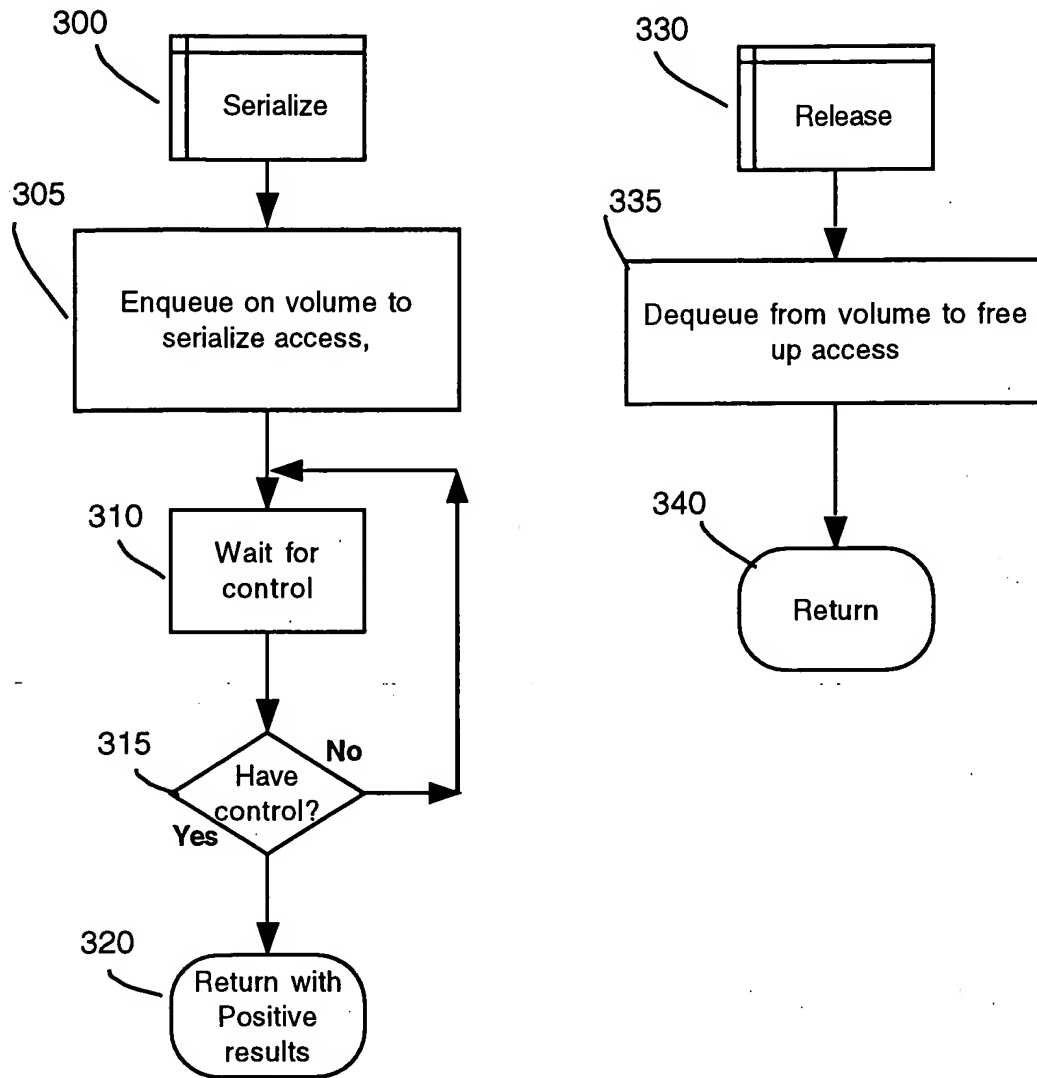


Fig. 2c

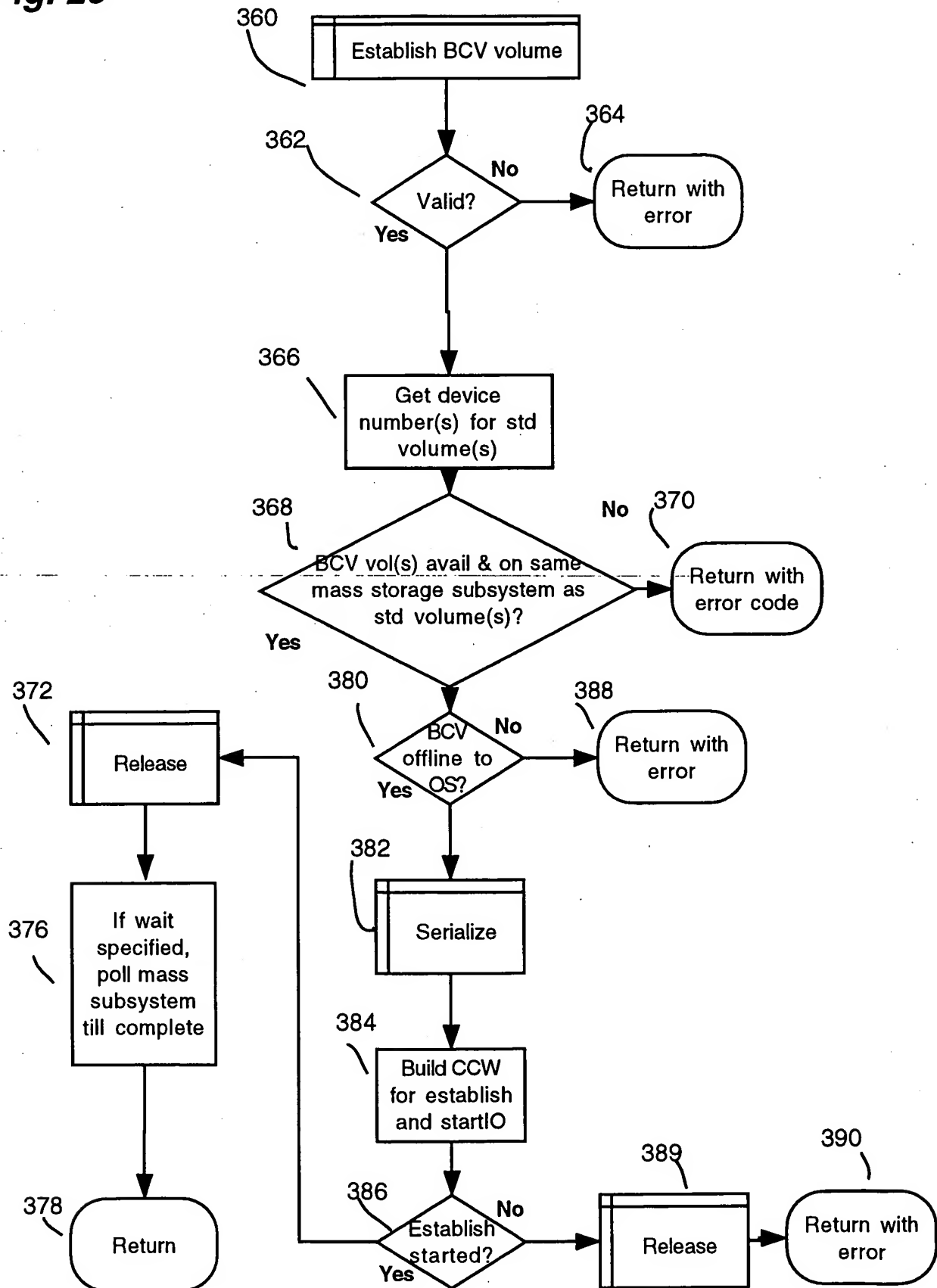


Fig. 2d

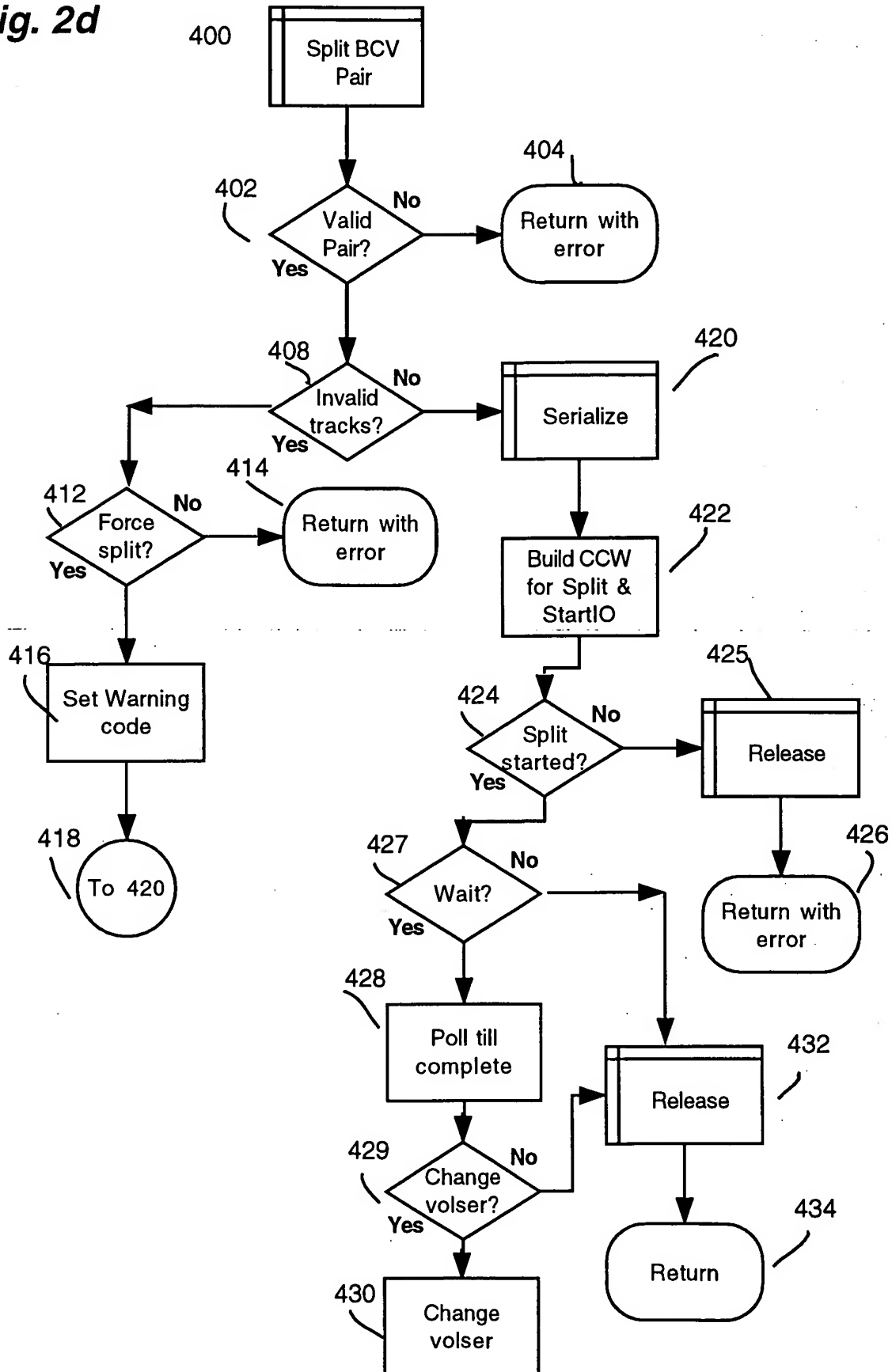


Fig. 2e

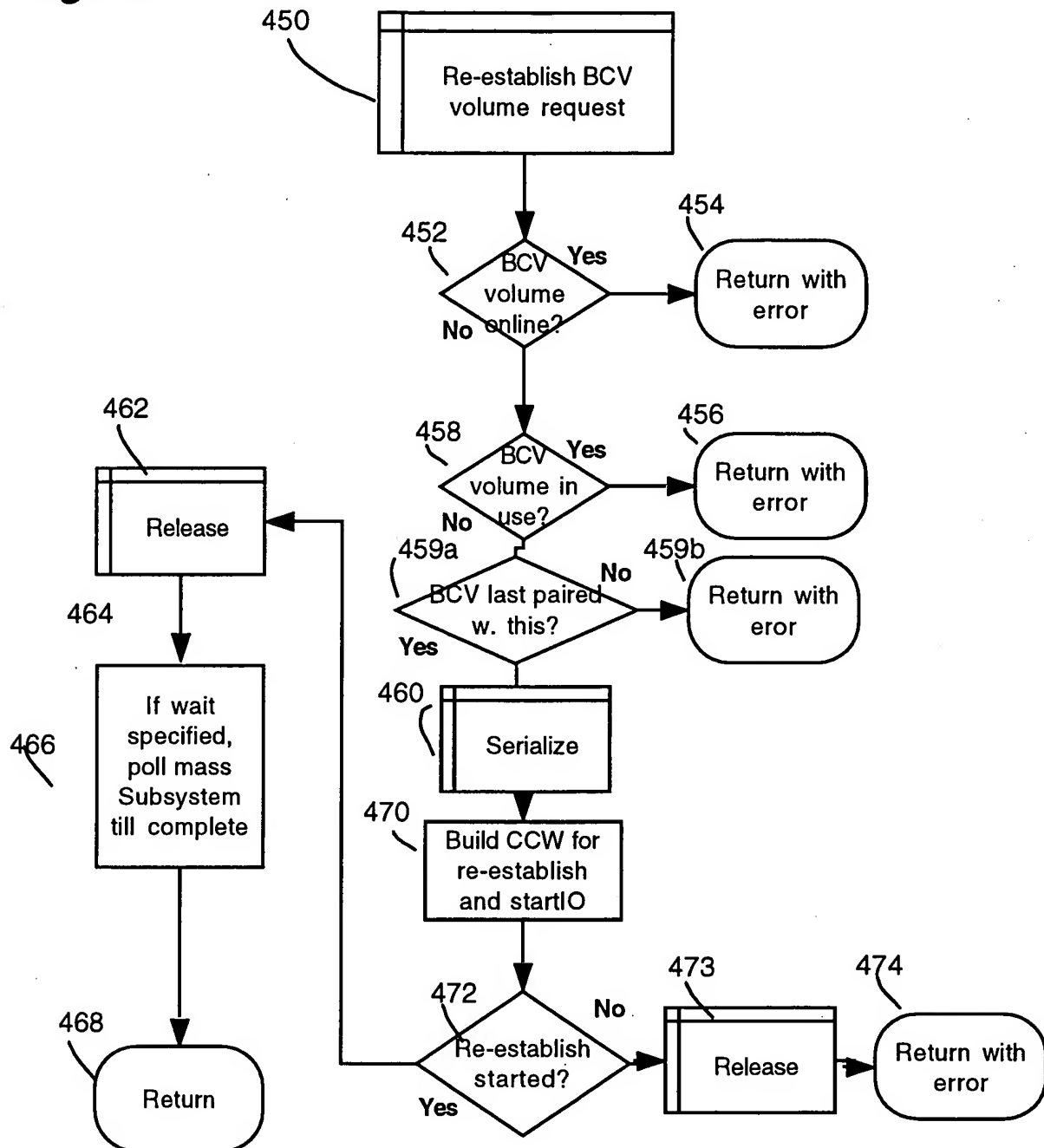


Fig. 2f

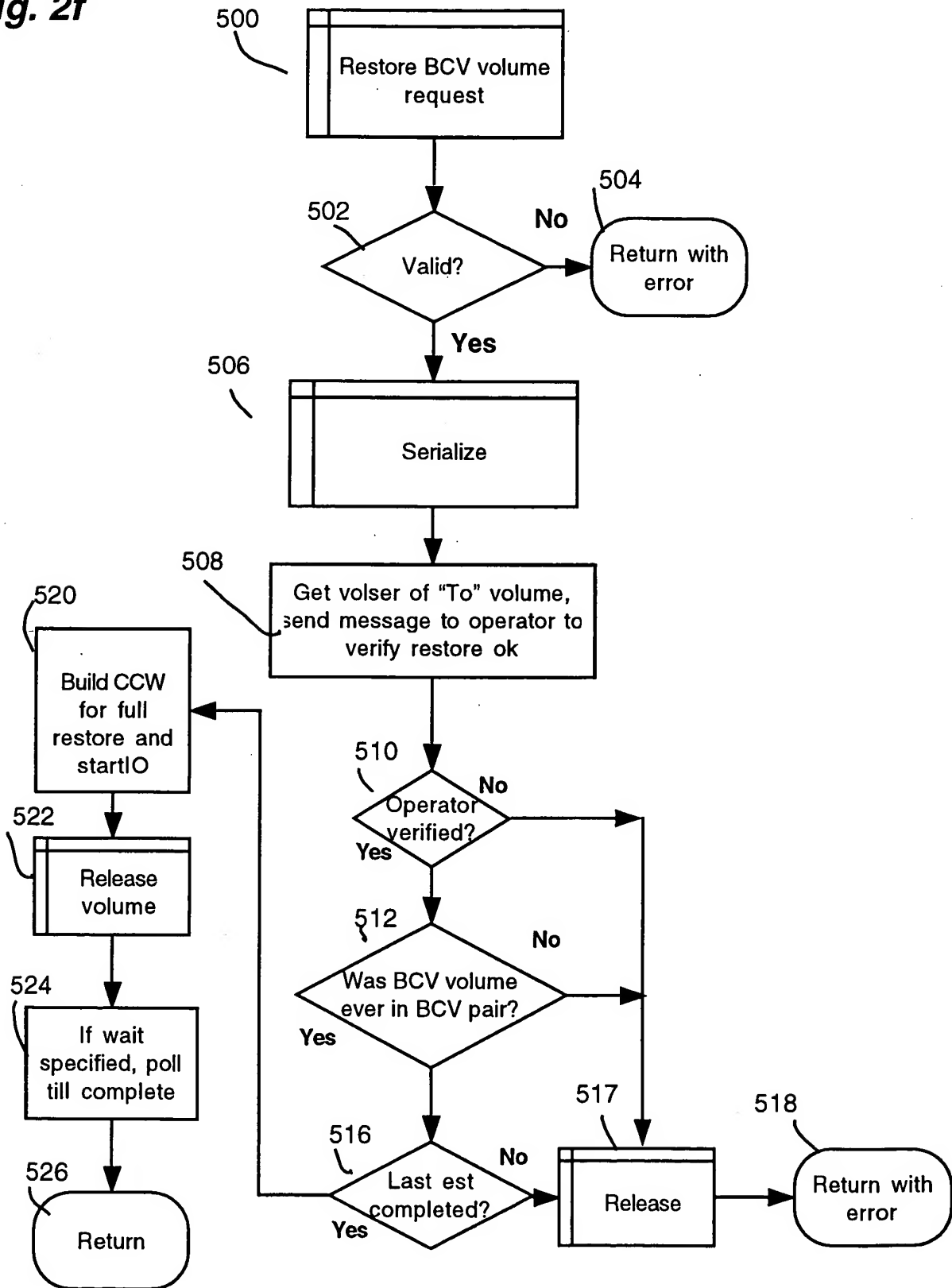


Fig. 2g

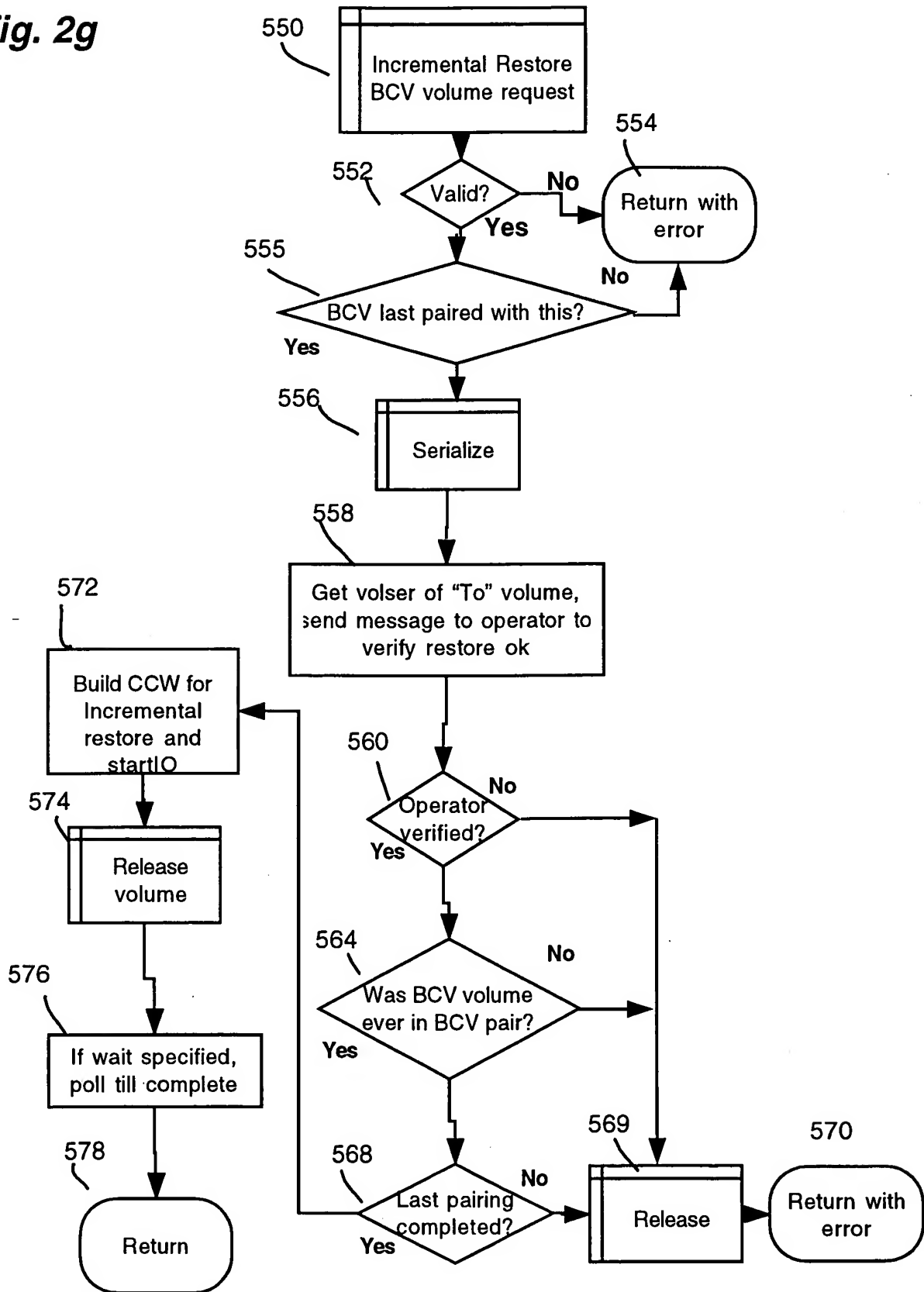


Fig. 2h

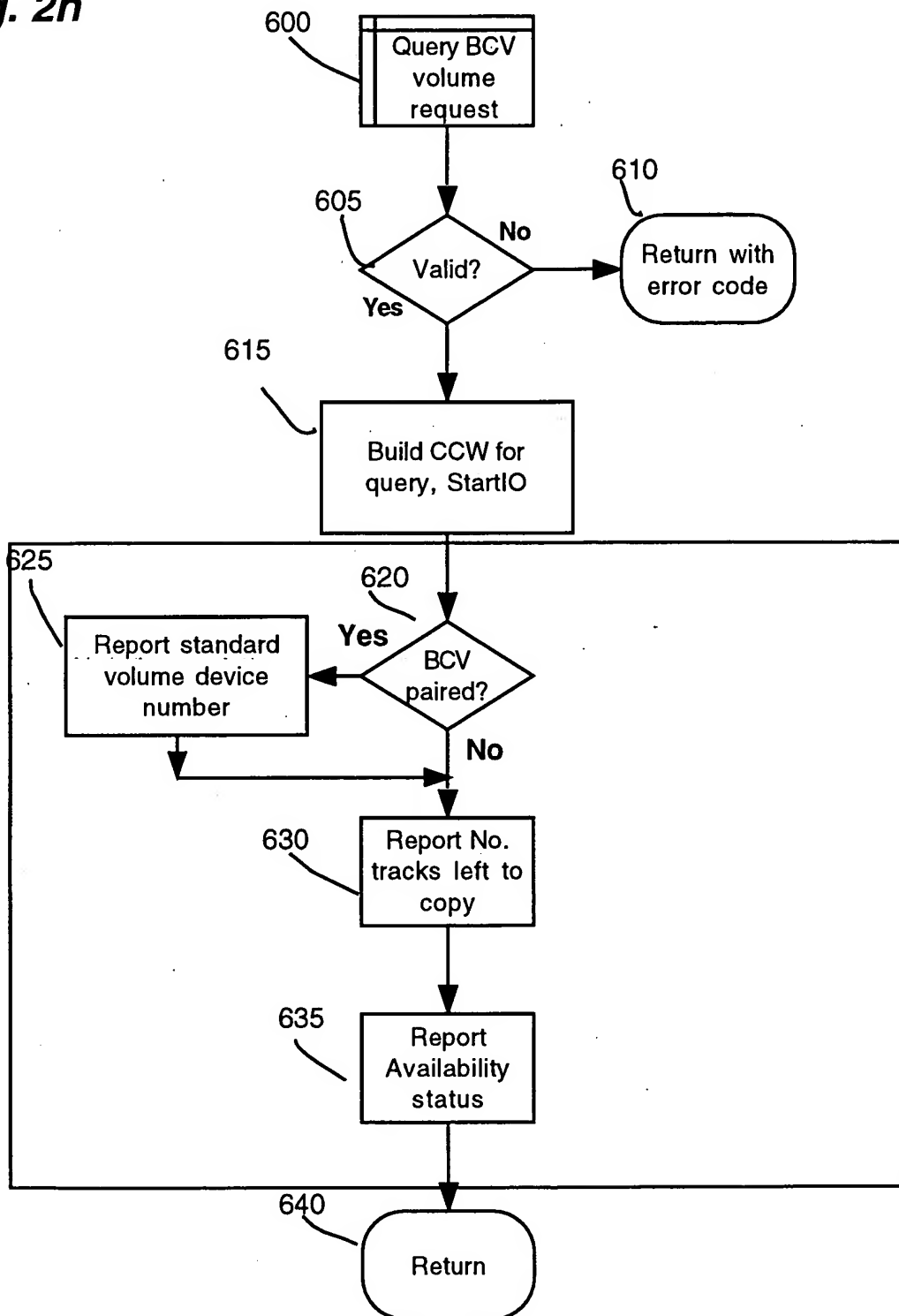


Fig. 2i

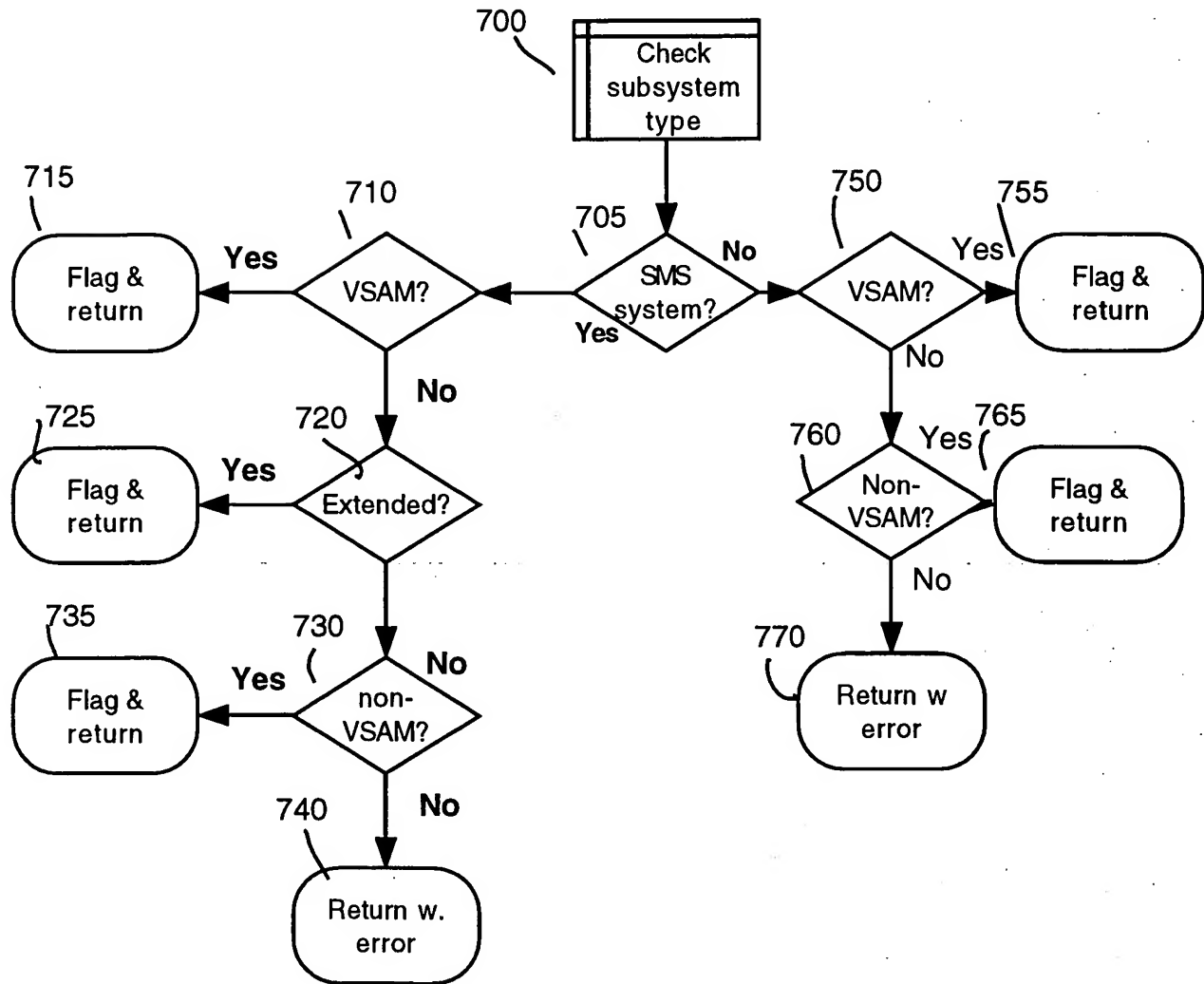


Fig. 3a

800

Action	seq#	cuup	cuus	WAIT
802 QUERY	1-128	n/a	required	n/a
804 ESTABLISH	1-128	required	required	y/n
806 RE-ESTABLISH	1-128	n/a	required	y/n
808 SPLIT	1-128	n/a	required	y/n
810 RESTORE	1-128	optional	required	y/n

812

Command Syntax

The actions to be performed are defined in the SYSIN DDname file.
An (*) in column one denotes a comment line.

- * *cuu* specifies any device on the controller.
- * *cuup* specifies a standard volume.
- * *cuup-cuup* specifies a range of standard volumes.
- * *cuus* specifies a BCV volume.
- * *cuus-cuus* specifies a range of BCV volumes.
- * DSN specifies a fully qualified VSAM or non-VSAM file. If the file spans multiple volumes, the action will be performed on all volumes.
- * BCVgroup names may be used.
- * *seq#* specifies a decimal number 1 to 128 that indicates in what order the specified command is executed, all actions on the same sequence level will be executed in parallel.
- * WAIT/NOWAIT specifies the ability to wait for the completion of the action or to continue once the command is passed to the controller.
- * Global command sets default values for WAIT, maximum return code (MAXRC), disable search when query issued; and debug.

Fig. 3b

902 This example establishes multiple BCVs, allows them to synchronize, splits them in preparation for backups, calls a userexit that will ask for an operator reply when the backups are complete, and resumes operation with the devices.

```

904      // EMCBKUP JOB (EMC), CLASS=A,MSGCLASS=X
          //*
          //*****
          //* PERFORM THE REQUESTED ACTIONS *
          //*****
          //*
906      // PROCACT      EXEC      PGM=EMCTF
908      // SYSOUT      DD        SYSOUT=A
910      // SYSIN      DD        *
912      GLOBAL          WAIT,MAXRC=4
914      QUERY          1,100
916      ESTABLISH      2,140,100
918      ESTABLISH      2,141,101
920      ESTABLISH      2,142,102
922      ESTABLISH      2,143,103
924      QUERY          3,100
926      SPLIT          4,140
928      SPLIT          4,141
930      SPLIT          4,142
932      SPLIT          4,143
934      QUERY          5,100
936      USEREXIT      6,WAITBKUP
938      RE-ESTABLISH   7,140
940      RE-ESTABLISH   7,141
942      RE-ESTABLISH   7,142
944      RE-ESTABLISH   7,143
946      QUERY          8,100
948      //*

```


Fig. 3c

1000 This example suspends a backup device, backs up a dataset, and re-establishes the backup device.

```
1002 // EMCBKUP   JOB   (EMC), CLASS=A,MSGCLASS=X
      //*
      //*****
1004 /* SPLIT THE DEVICE'S*
      //*****
      //*
1006 //SUSPEND EXEC PGM=EMCTF
      //SYSOUT DD   SYSOUT=A
1008 //SYSIN DD
1010 QUERY 1,100
1012 SPLIT 2,140
1014 QUERY 3,100
      //*
      //*****
1016 /* RUN THE BACKUP *
      //*****
      //*
1018 //BACKUP EXEC PGM=FDRDSF
      //SYSPRINT DD   SYSOUT=*
      //SYSUDUMP DD   SYSOUT=*
1020 //DISK1 DD DSN=FDR.USE.UNIT0140,DISP=OLD,
      UNIT=3390,VOL=SER=vvvvv
1022 //TAPE DD DSN=tape.dataset.name,UNIT=TAPE,DISP=(,CATLG)
1024 //SYSIN DD
1026 DUMP TYPE=DSF
1028 SELECT DSN=PAYROLL.**
      //*
      //*****
1030 /* SYNCHRONIZE THE DEVICE'S
      //*****
      //*
1032 //RESET EXEC PGM=EMCTF
      //SYSOUT DD   SYSOUT=A
1034 //SYSIN DD
1036 QUERY 1,100
1038 RE-ESTABLISH 2,140,NOWAIT
1040 QUERY 3,100
```

Fig.3d

```
1100 //JOB
1102 //EMCTFU EXEC PGM=EMCTFU
      //SYSOUT DD SYSOUT=*
1104 //TFINPUT DD *
1106 SIMULATE
1108 RELABEL CUU=100,OLD-VOLSER=TSO000,NEW-VOLSER=BCV000
1110 RELABEL CUU=101,OLD-VOLSER=TSO001,NEW-VOLSER=BCV001
1112 RELABEL CUU=102,OLD-VOLSER=TSO002,NEW-VOLSER=BCV002
1114 PROCESS VOLSER=BCV000
1116 PROCESS VOLSER=BCV001,VSAM
1118 PROCESS VOLSER=BCV002,NON-VSAM
1120 CATALOG CATALOG.DEFAULT,DEFAULT
1122 CATALOG CATALOG.TEMP,NEW,VOLSER=TS0001
1124 RENAME SYS,SYSBCV,CATALOG=CATALOG.TEMP
1126 RENAME TSO,TSO.ABC,CATALOG=CATALOG.TEMP
1128 RENAME USER,USERBCV
1130 RENAME USER1,USER1
/*
```

Fig. 4a

1200 ESTABLISH seq#, cuus, cuup [,WAIT | ,NOWAIT]
or
1202 ESTABLISH seq#, cuus-cuus, cuup-cuup [WAIT | ,NOWAIT]
or
1204 ESTABLISH seq#, DSN= [,WAIT | ,NOWAIT] [,GROUP=]

Fig. 4b

1220 ESTABLISH 1,143,103
1224 ESTABLISH 1, 143-145, 103-105
1226 ESTABLISH 1, DSN=SYS1.PARMLIB

Fig. 4c

RE-ESTABLISH seq#, cuus [WAIT \ NOWAIT]

Fig. 4d

RESTORE seq#, cuus [,cuup] [,WAIT | NOWAIT] [,VERIFY (volser |
FBADEV)] [,NOR1SYNC}

Fig. 4e

SPLIT seq#, cuus [,WAIT | NOWAIT] [,FORCE | NOFORCE]

Fig. 4f

QUERY seq#, cuu [,ALL | count]

Fig. 4g

USEREXIT seq#, load-module-name, p1, p2

Fig. 5

1300

	Processing Statements
1302	Debug
1304	Simulate
1306	Relabel
1308	Process
1310	Catalog
1312	Rename
1314	IDCAMS Model statements

Fig. 6

command code	data address	flags	reserved	count
--------------	--------------	-------	----------	-------